# Rubber Cable

## H07RN-F

**Flexible rubber cable, for industrial use.**

EN 50525-2-21 / IEC 60245-4

CPR COMPLIANT
Construction Products Regulation
EN 50575

$E_{ca}$

## DESIGN

### Conductor

Electrolytic copper, class 5 (flexible), based on EN 60228 and IEC 60228.

### Insulation

Rubber (type EPR).
The standard identification of insulated conductors is the following:

| | |
|---|---|
| 1 x | natural |
| 2 x | Brown + Blue |
| 3 G | Brown + Blue + Green/Yellow |
| 4 G | Brown + Black + Grey + Green/Yellow |
| 5 G | Brown + Black + Grey + Blue + Green/Yellow |
| 6 G or more | Black numbered + Green/Yellow |

### Outer sheath

Flexible rubber. Black colour.

## APPLICATIONS

H07RN-F rubber cables are designed to supply power to low voltage appliances including electric motors and submersible pumps in deep water installations as well as many other types of electrical equipment. Thanks to its extraordinary flexibility and mechanical strength, the H07RN-F cable is ideal for power transmission in both fixed instalation or mobile service. The nominal voltage up to 1000 V thanks to the high dielectric properties of the insulation material (according to HD 516).

## CHARACTERISTICS

### Electrical performance

H07RN-F: LOW VOLTAGE 450/750 V
DN-F: LOW VOLTAGE 0,6/1kV

### Standard

H07RN-F: EN 50525-2-21 / IEC 60245-4
DN-F: UNE 21150

### Approvals

| | |
|---|---|
| CE | DNV |
| SEC | SASO |
| HAR | RoHS |
| AENOR | Safe drinking water certificate |

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### Thermal performance

Maximum service temperature: 90°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C (fixed and protected installations) and -35°C (mobile use).

### Fire performance

Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.

Reaction to fire CPR: Eca , according to EN 50575.

### Mechanical performance

Minimum bending radius: 3 x cable Ø (up to 12 mm2).
4 x cable Ø (from 12 mm2 onwards).
Impact resistance: AG2 Medium severity.

### Chemical performance

Chemical & Oil resistance: Excellent.
Grease & mineral oils resistance: Excellent.

### Water performance

Water resistance: AD8 Submersion.
Submersible pumps.
Deep wells.
Drinkable water.

### Other

Meter by meter marking.

### Installation conditions

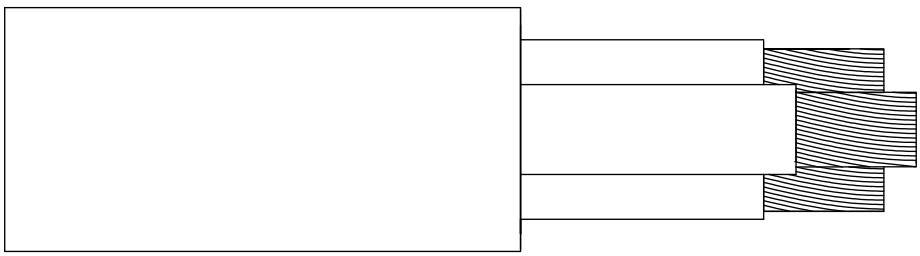
Open Air.

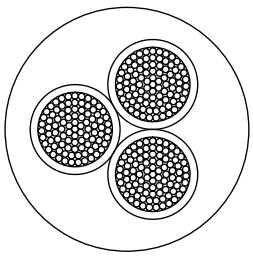
### Applications

Industrial use.
Mobile use.
Robotics.
Windmills.
Temporary site installations.

### Packaging

Available in coils of 100 m. and drums.





## DIMENSIONS H07RN-F 450 / 750 V

| Cross section (mm2) | Diameter (mm2) | Weight (Kg/km) | Fixed inst 30°C (A) | Mobile inst 30°C (A) | Voltage drop (V/A · km) |
|---|---|---|---|---|---|
| 1 x 1,5 | 5,9 | 45 | 21 | 16 | 26,7 |
| 1 x 2,5 | 6,5 | 60 | 29 | 20 | 16,6 |
| 1 x 4 | 7,4 | 85 | 40 | 30 | 9,95 |
| 1 x 6 | 8,2 | 110 | 53 | 38 | 6,63 |
| 1 x 10 | 10 | 170 | 74 | 53 | 3,84 |
| 1 x 16 | 11,2 | 235 | 101 | 71 | 2,43 |
| 1 x 25 | 13,2 | 350 | 135 | 94 | 1,57 |
| 1 x 35 | 14,7 | 465 | 169 | 117 | 1,11 |
| 1 x 50 | 17 | 630 | 207 | 148 | 0,776 |
| 1 x 70 | 18,9 | 840 | 268 | 185 | 0,546 |
| 1 x 95 | 21,4 | 1.100 | 328 | 222 | 0,414 |
| 1 x 120 | 23,3 | 1.370 | 383 | 260 | 0,323 |
| 1 x 150 | 25,8 | 1.685 | 444 | 300 | 0,259 |
| 1 x 185 | 28,1 | 2.040 | 510 | 341 | 0,213 |
| 1 x 240 | 31,3 | 2.615 | 607 | 407 | 0,161 |
| 1 x 300 | 34,5 | 3.275 | 703 | 468 | 0,129 |
| 1 x 400 | 39,3 | 4.275 | 823 | 553 | 0,0976 |
| 1 x 500 | 43,2 | 5.410 | 946 | 634 | 0,0772 |
| 2 x 1 | 7,5 | 80 | 21 | 10 | 45,2 |
| 2 x 1,5 | 8,3 | 100 | 26 | 16 | 30,9 |
| 2 x 2,5 | 9,8 | 145 | 36 | 25 | 18,5 |
| 2 x 4 | 10,9 | 195 | 49 | 34 | 11,5 |
| 2 x 6 | 12,4 | 265 | 63 | 43 | 7,66 |
| 2 x 10 | 17,5 | 485 | 86 | 60 | 4,43 |
| 2 x 16 | 19,5 | 650 | 115 | 79 | 2,81 |
| 2 x 25 | 24,8 | 1.010 | 149 | 105 | 1,81 |
| 2 x 35 | 27,4 | 1.295 | 185 | 130 | 1,29 |
| 2 x 50 | 32 | 1.780 | 225 | 165 | 0,896 |
| 2 x 70 | 35,8 | 2.335 | 289 | 205 | 0,631 |
| 3 G 1 | 8,2 | 95 | 21 | 10 | 45,2 |
| 3 G 1,5 | 9,2 | 125 | 26 | 16 | 30,9 |
| 3 G 2,5 | 10,9 | 185 | 36 | 25 | 18,5 |
| 3 G 4 | 12,4 | 260 | 49 | 35 | 11,5 |
| 3 G 6 | 14,4 | 350 | 63 | 44 | 7,66 |
| 3 G 10 | 19,4 | 625 | 86 | 62 | 4,43 |
| 3 G 16 | 21,8 | 855 | 115 | 82 | 2,81 |
| 3 G 25 | 26 | 1.255 | 149 | 109 | 1,81 |
| 3 G 35 | 29,2 | 1.655 | 185 | 135 | 1,29 |
| 3 G 50 | 33,5 | 2.235 | 225 | 169 | 0,896 |
| 3 G 70 | 37,3 | 2.970 | 289 | 211 | 0,631 |

| Cross section (mm2) | Diameter (mm2) | Weight (Kg/km) | Fixed inst 30°C (A) | Mobile inst 30°C (A) | Voltage drop (V/A · km) |
|---|---|---|---|---|---|
| 3 G 95 | 44 | 3.935 | 352 | 250 | 0,478 |
| 3 G 120 | 47,5 | 4.840 | 410 | 292 | 0,373 |
| 3 G 150 | 52,8 | 5.985 | 473 | 335 | 0,299 |
| 3 G 185 | 57,7 | 7.210 | 542 | 378 | 0,245 |
| 4 G 1 | 9 | 120 | 17 | 10 | 39,2 |
| 4 G 1,5 | 10,3 | 160 | 23 | 16 | 26,7 |
| 4 G 2,5 | 11,9 | 230 | 32 | 20 | 16 |
| 4 G 4 | 13,8 | 320 | 42 | 30 | 9,95 |
| 4 G 6 | 15,6 | 435 | 54 | 37 | 6,63 |
| 4 G 10 | 21,4 | 770 | 75 | 52 | 3,84 |
| 4 G 16 | 24,3 | 1.075 | 100 | 69 | 2,43 |
| 4 G 25 | 29,5 | 1.620 | 127 | 92 | 1,57 |
| 4 G 35 | 32,5 | 2.105 | 158 | 114 | 1,11 |
| 4 G 50 | 37,4 | 2.875 | 192 | 143 | 0,776 |
| 4 G 70 | 41,8 | 3.825 | 246 | 178 | 0,546 |
| 4 G 95 | 47,4 | 4.980 | 298 | 210 | 0,414 |
| 4 G 120 | 52,3 | 6.165 | 346 | 246 | 0,323 |
| 4 G 150 | 57,5 | 7.605 | 399 | 282 | 0,259 |
| 4 G 185 | 63,1 | 9.205 | 456 | 319 | 0,213 |
| 4 G 240 | 72,1 | 12.030 | 538 | 377 | 0,161 |
| 5 G 1 | 9,8 | 145 | 17 | 10 | 39,2 |
| 5 G 1,5 | 11,1 | 190 | 23 | 16 | 26,7 |
| 5 G 2,5 | 13,2 | 280 | 32 | 20 | 16 |
| 5 G 4 | 15,3 | 400 | 42 | 30 | 9,95 |
| 5 G 6 | 17,7 | 545 | 54 | 38 | 6,63 |
| 5 G 10 | 23,7 | 945 | 75 | 54 | 3,84 |
| 5 G 16 | 26,9 | 1.320 | 100 | 71 | 2,43 |
| 5 G 25 | 32,9 | 1.995 | 127 | 94 | 1,57 |
| 5 G 35 | 35,8 | 2.560 | 158 | 114 | 1,11 |
| 5 G 50 | 42,2 | 3.575 | 192 | 143 | 0,776 |
| 5 G 70 | 46,7 | 4.715 | 246 | 178 | 0,546 |
| 5 G 95 | 52,5 | 6.105 | 298 | 210 | 0,414 |
| 5 G 120 | 57,2 | 7.500 | 346 | 246 | 0,323 |
| 7 G 1,5 | 14,5 | 305 | 26 | 16 | 30,9 |
| 7 G 2,5 | 16,6 | 425 | 36 | 25 | 18,5 |
| 7 G 4 | 20,2 | 635 | 49 | 34 | 11,5 |
| 8 G 1,5 | 15,5 | 350 | 26 | 16 | 30,9 |
| 8 G 2,5 | 18,4 | 505 | 36 | 25 | 18,5 |
| 8 G 4 | 21,8 | 735 | 49 | 34 | 11,5 |
| 10 G 2,5 | 19,2 | 560 | 36 | 25 | 18,5 |

Maximum current capacity according to IEC 60364-5-52.
For other installation conditions, please refer to correction factors in the appendix to this catalogue.
See more technical data on the particular cable specification and on its Declaration of Performance (DoP)
Top Cable reserves the right to carry out any modification to the data sheets whatsoever without giving previous notice.

| Cross section (mm2) | Diameter (mm2) | Weight (Kg/km) | Fixed inst 30°C (A) | Mobile inst 30°C (A) | Voltage drop (V/A · km) |
|---|---|---|---|---|---|
| 10 G 4 | 22,8 | 830 | 49 | 34 | 11,5 |
| 12 G 1,5 | 17,1 | 445 | 26 | 16 | 30,9 |
| 12 G 2,5 | 19,6 | 635 | 36 | 25 | 18,5 |
| 12 G 4 | 24,3 | 945 | 49 | 34 | 11,5 |
| 16 G 1,5 | 19,6 | 580 | 26 | 16 | 30,9 |
| 16 G 2,5 | 22,5 | 840 | 36 | 25 | 18,5 |
| 18 G 1,5 | 20,2 | 635 | 26 | 16 | 30,9 |
| 18 G 2,5 | 23,3 | 910 | 36 | 25 | 18,5 |
| 19 G 1,5 | 21,1 | 670 | 26 | 16 | 30,9 |
| 19 G 2,5 | 25,1 | 995 | 36 | 25 | 18,5 |
| 24 G 1,5 | 23,1 | 810 | 26 | 16 | 30,9 |
| 24 G 2,5 | 27 | 1.180 | 36 | 25 | 18,5 |

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